

Art Unit: \*\*\*

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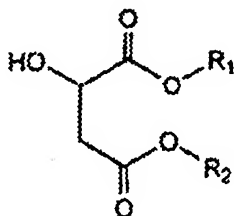
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Claim 1

1. (Amended) In a method for applying a coating of a water-based composition to a surface to partially or fully coat the surface, the composition comprising an aqueous medium which is at least 90 wt% water and containing an inorganic or organic compound and an effective amount of a surfactant for reducing the dynamic surface tension of the composition, the improvement which comprises employing as the surfactant a malate diester of the structure



where R<sub>1</sub> and R<sub>2</sub> are C3 to C6 alkyl groups.

Claims 2 – 11 (original)

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2. The method of Claim 1 in which the water-based composition is selected from the group consisting of aqueous organic coating, ink, adhesive, fountain solution and agricultural compositions and the malate diester is present at 0.001 to 20 wt% of the water-based composition.

3. The method of Claim 2 in which an aqueous solution of the malate diester demonstrates a dynamic surface tension of less than 45 dynes/cm at a concentration of  $\leq 5$  wt% in water at 25°C and 6 bubbles/second according to the maximum-bubble-pressure method.

4. The method of Claim 1 in which  $R_1$  and  $R_2$  are the same.

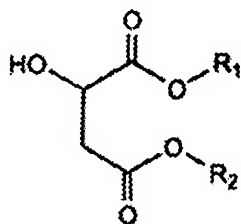
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5. The method of Claim 4 in which  $R_1$  and  $R_2$  are a C4 alkyl group.
6. The method of Claim 4 in which  $R_1$  and  $R_2$  are a C5 alkyl group.
7. The method of Claim 4 in which the alkyl group has terminal branching.
8. The method of Claim 4 in which the alkyl group is isobutyl.
9. The method of Claim 4 in which the alkyl group is n-butyl.
10. The method of Claim 7 in which the ester is derived from a primary alcohol.
11. The method of Claim 3 in which the measurement is made at 20 bubbles/second.

Claim 12

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12. (Amended) An aqueous composition comprising in an aqueous medium which is at least 90 wt% water an inorganic compound which is a mineral ore or a pigment or an organic compound which is a pigment, a polymerizable monomer, an oligomeric resin, a polymeric resin, a detergent, a herbicide, an insecticide, a fungicide, or a plant growth modifying agent and an effective amount of a malate diester for reducing the dynamic surface tension of the composition, the malate diester having the structure:



where  $R_1$  and  $R_2$  are a C3 to C6 alkyl group.

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Claims 13 – 20 (original)

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13. The aqueous composition of Claim 12 in which an aqueous solution of the malate diester demonstrates a dynamic surface tension of less than 45 dynes/cm at a concentration of  $\leq 5$  wt% in water at 25°C and 6 bubbles/second according to the maximum-bubble-pressure method and the malate diester is present at 0.01 to 10 wt% of the aqueous composition.

14. The aqueous composition of Claim 12 in which  $R_1$  and  $R_2$  are a C4 alkyl group.

15. The aqueous composition of Claim 12 in which  $R_1$  and  $R_2$  are a C5 alkyl group.

16. The aqueous composition of Claim 12 in which the alkyl group has terminal branching.

17. The aqueous composition of Claim 16 in which the ester is derived from a primary alcohol.

18. The aqueous composition of Claim 12 in which the alkyl group is isobutyl.

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19. The aqueous composition of Claim 12 in which the alkyl group is n-butyl.

20. The aqueous composition of Claim 13 in which the measurement is made at  
20 bubbles/second.

Claims 21 – 25 (cancelled)